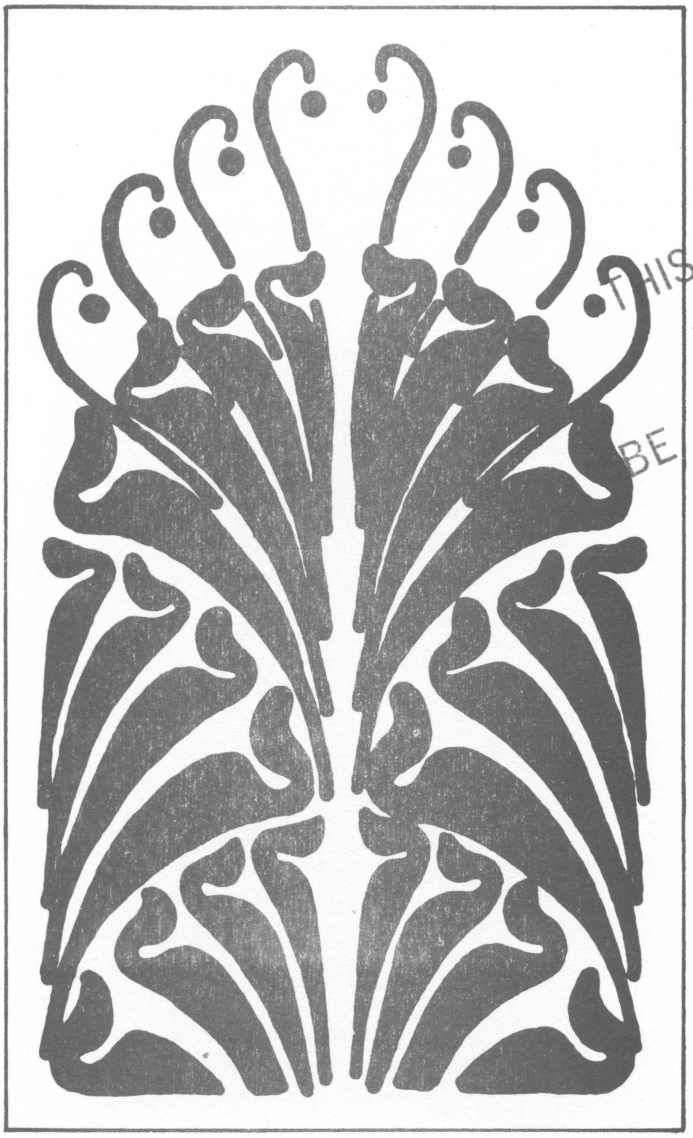
B-1187C
February 1978

Farm Size in Relation to Market Outlets and Forward Contracts for Major Field Crops and Beef Cattle

Texas Rolling Plains



The Texas Agricultural Experiment Station • Neville P. Clarke, Director, College Station, Texas
The Texas A&M University System • In cooperation with the U. S. Department of Agriculture

[Blank Page in Original Bulletin]

FARM SIZE IN RELATION TO MARKET OUTLETS AND FORWARD CONTRACTS FOR MAJOR FIELD CROPS AND BEEF CATTLE TEXAS ROLLING PLAINS

by

Donald S. Moore and J. Rod Martin

Texas Agricultural Experiment Station
Texas A&M University
College Station, Texas

in cooperation with the

National Economic Analysis Division
Economics, Statistics, and Cooperatives Service
United States Department of Agriculture

CONTENTS

SUMMARY AND CONCLUSIONS

Agricultural producers are continually adjusting to changing marketing channels. Some farmers obviously seek these changes, while others are only later affected by the changing conditions. One example of changing marketing channels is the use of contracts in marketing agricultural products, which has become more frequent in recent years.

This study estimated the importance of the various types of first handler markets, including contracting, and the relationship between the various types of markets and the farms utilizing them in the Rolling Plains. The study area was selected because farming in the Rolling Plains of Texas involves a mixture of basic commodities, including cotton, grain sorghum, wheat, and beef cattle, which are important in the regional area of the south and southwest. Farm operations in this area appear to be typical in terms of operator attitudes and farm sizes.

The findings reveal a strong relationship between farm size and contracting. The use of both crop and beef cattle contracts is associated with the larger farm producing units. The results suggest that larger farm operators are either more active and aggressive in seeking contracts or have advantages in being able to obtain contracts. This situation has implications for farm firm survival, structural changes, and adjustments in farming. In the event that contracting leads to lower marketing costs, more efficient marketing, or lower marketing risks, the larger producers may have these additional advantages in terms of mobilizing capital and other farm resources and in the growth and development of their farm operations.

About one-fourth of all crop farm operators made a contract for the sale of either cotton, grain sorghum, or wheat in 1973. Other than farm size, there did not appear to be any distinguishing characteristics between crop farms that contracted and those that did not contract. A substantially higher proportion of the larger size operating units made contracts than operators of smaller size units. About one-half of those operators who operated 600 or more acres of cropland made a contract for one or more crops. In contrast, only about 14 percent of the operators with units of less than 150 acres of cropland made a contract in 1973. Contracts for cotton were made with considerably more frequency than contracts for either grain sorghum or wheat. If size is measured in terms of acres of cotton planted, rather than acres of cropland in the farm, the relationship between farm size and crop contracted is even more pronounced. Approximately three-fourths of the growers who planted 500 acres or more of cotton contracted all or a portion of their crop, compared with about one-fourth of the growers who planted less than 100 acres of cotton.

Beef cattle contracts are mainly used to purchase feeder cattle produced in connection with large wheat-stocker type operations where calves are grown out to feeder weights. Seventy percent of the cattle marketed through contracts appeared to be from stocker type enterprises that involved wheat and/or other types of cropland grazing activities. While only 7 percent of beef cattle producers used contracts to sell or market beef cattle, more than 20 percent of all beef cattle marketed in 1973 were sold under contract because larger producers were more inclined to market cattle this way. No beef producers with sales

of less than 20 head and only 0.3 percent of the beef cattle producers with cattle sales between 20 and 59 head sold beef cattle through a contract, while a high proportion of the larger beef producers utilized contracts in 1973. The use of beef cattle contracts has increased with the growth and development of cattle feeding. Many producers who started to contract before 1973 continue to use contracts and deal with the same contractor each year. Order buyers usually act as agents for the feedlots in making the contracts.

The crop contracts utilized in the Rolling Plains must be classified as forward pricing contracts or advanced sale agreements. Production practices generally were not specified, other than prohibiting certain harvesting practices, such as picking cotton off the ground and the specification that producers practice good farming methods. The contracts usually specified a price in relation to a stated quality and a quantity, including all production from a specified number of acres. If a grower's contract was written in terms of all production from a specified acreage, the usual procedure was for him to contract all the acreage which he planted or expected to harvest. Those growers who contracted a specified volume of production usually contracted a substantially smaller volume than the amount they expected to produce.

Beef cattle contracts usually specify a specific price, amount of part payment involved, description and location of the cattle, delivery rate, FOB delivery point, allowable 10-percent cut for the buyer to sort out undesirable cattle, 3-percent pencil shrink, scales to be used to determine pay rates, and health and brand certificates which must be

furnished by the seller. Although the beef cattle contracts cannot be classified as production contracts, a number of them specify certain production practices that must be followed, such as no use of implants and no grain fed and/or limiting supplemental feed to a certain level when needed during drouthy periods or during other bad weather. Certain advantages, such as lower marketing costs, less handling, and personal contacts with producers, may exist in connection with the use of beef cattle contracts, but costs savings to buyers are apparently possible only when they are associated with larger producing units.

In terms of all market outlets, local merchants or elevators were by far the major purchasers of the three principal field crops (cotton, grain sorghum, and wheat). There appears to be no significant relationship between farm size and the utilization of local markets. Central market merchants ranked second in importance as purchasers of cotton, accounting for 17 percent of the total sales, but were not important markets for grain sorghum and wheat. Farmers' cooperative associations purchased 15 percent of the cotton sold by farmers in the Rolling Plains and 11 percent of the wheat, but they accounted for only 4 percent of grain sorghum sales. Through cotton merchants, foreign buyers made some purchases from operators of medium-sized farms but did not deal with the small or largest cotton producers.

Small beef cattle producers tend to utilize auction markets, and large beef cattle producers tend to sell through order buyers. Although 86 percent of the producers utilized auction markets, only 47 percent of all cattle and calves were sold through auctions in 1973.

Only 15 percent of the producers sold cattle and calves through order buyers, but 40 percent of all cattle and calves sold were sold through order buyers.

ACKNOWLEDGMENT

This research was conducted by The Texas Agricultural Experiment Station of Texas A&M University, in cooperation with the Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture, under TAES Project H-2048, Economic Growth of the Agricultural Firm, and ESCS Project NEA-13-115, Evaluating Coordination and Exchange Arrangements in the Food and Fiber System.

Thanks are due the Texas Crop and Livestock Reporting Service, particularly M. David Humphrey, Jr., mathematical statistician, for providing information and assistance concerning the sampling and expansion procedures used in this analysis.

The farmers and ranchers in the Texas Rolling Plains who furnished information for the study are especially recognized.

FARM SIZE IN RELATION TO MARKET OUTLETS AND FORWARD CONTRACTS FOR MAJOR FIELD CROPS AND BEEF CATTLE, TEXAS ROLLING PLAINS

by

Donald S. Moore and J. Rod Martin*

INTRODUCTION

The relationship between farm business size and production efficiency has been well documented in previous research studies. The results of these studies indicate that the larger size units usually have lower unit production costs because they are able to spread fixed overhead expenses over a larger volume of production. They also may have other economies, such as the ability to obtain lower rates for input items because of volume purchases. There has been little previous research, however, to determine whether there is a relationship between farm business size and marketing practices, strategies, and/or costs. This study is an exploratory effort to determine whether there is a relationship between the size of producing firm and marketing practices, such as the types of purchasers to whom products are sold, and the use of forward contracts.

Contracts have been used in the production and marketing of some crops and livestock for many years. Historically, wide differences have existed in the terms and conditions of contracts and in the extent to which management and production decisions are affected. For some

---

*Respectively, associate professor, The Texas Agricultural Experiment Station (Department of Agricultural Economics), and agricultural economist, National Economic Analysis Division, ESCS-USDA, College Station, Texas.

commodities, such as broilers, contracts have been an important vehicle in the evolution of a highly integrated production - marketing system. Under these production type contracts, the producer's role in the making of decisions and control of resources is modified substantially, his role in some instances being nearer that of a laborer than that of a proprietor. On the other hand, forward contracts, typically used in the marketing of commodities, such as cotton, grain sorghum, wheat, and beef cattle, are agreements between the producer to sell and the buyer to purchase all or a part of the producer's product. These agreements may be made several months before the actual transfer of the commodity from seller to buyer, in some instances even before the planting of a crop. Terms of price establishment, quality and quantity of product, and time of delivery are stipulated in the contract. These agreements may provide market and price security to the seller without infringing on his proprietorship. They also may assure the purchaser of desired quality and quantity flows.

While forward contracts appear to have little implication for decision control, they could have implications for firm survival and growth if larger farm sizes have advantages in obtaining contracts or more advantageous prices. Those firms most successful in obtaining contracts might have advantages in mobilizing capital and resources in the face of increasing price uncertainty and risk. Smaller size units could be at an even greater disadvantage in the struggle for survival.

Although contracts have been used in the production and marketing of crops and livestock for many years, there are indications that frequency of use has increased during recent years, particularly for

some commodities. The increasing use of crop contracts has been associated with increasing supply and price uncertainty. Changes in government programs in the early 1970's for cotton and food and feed grains contributed greatly to this uncertainty. Before the changes, loan support prices and purchase programs usually dampened wide gyrations in supply and price. Producers could make production plans and borrow operating capital with the assurance that these support prices would set an effective floor for prices at harvest. The price uncertainty resulting from the government changes was a major reason why many producers who had never contracted previously now entered into contracts.

Substantial reductions in Commodity Credit Corporation stocks helped create incentives for purchasers to make crop contracts. By entering into preharvest agreements with producers, they helped insure themselves against the possibility of supply shortages later in the season.

Of the four major farm commodities produced in the Rolling Plains (cotton, grain sorghum, wheat, and beef cattle), the greatest activity in contracting has occurred for cotton, according to U.S. Department of Agriculture estimates. Contracting covered 75 percent of deliveries from the U.S. cotton crop in 1973, an all-time peak in the contracting of the commodity (Table 1). The decline in U.S. stocks to only 3.3 million bales on August 1, the beginning of the 1972-73 marketing year (down from 4.2 million bales in 1971-72), contributed to the upsurge in contracting activity, as did an accompanying shortfall in world cotton stocks. United States, as well as Japanese, merchants and mills felt compelled to respond to the shortfall by expanding their contracting

Table 1. Percent of 1970-76 Cotton Production Which Was Forward Contracted and Amount of Carryover, August 1

Year	U.S.	Texas	U.S. stocks, Aug. 1
	Percent	Percent	1,000 480 Lb. Bales
1970	11	7	5,843
1971	43	39	4,203
1972	36	13	3,258
1973	75	68	4,221
1974	21	6	3,808
1975	10	1/	5,708
1976	50	26	3,681

1/ Less than .5 percent.

SOURCE: Compiled from reports of the Cotton and Wool Situation, U.S. Department of Agriculture, Agricultural Marketing Service.

activity to assure themselves of their usual supplies from the crop. To obtain contracts, prices were offered producers that in many instances were several times higher than those of a year earlier. The proportion of cotton production that was contracted dropped sharply during the next 2 years, from a peak of 75 percent in 1973 to a low of only 10 percent in 1975, because of increases in supplies and of offered prices for contracted cotton that were below the price expectations of cotton producers. The proportion of U.S. cotton production that was contracted increased from 10 percent in 1975 to 50 percent in 1976 because of declines in U.S. and world cotton stocks. Continued tight supplies and higher prices for contracted cotton stimulated a high level of contracting for 1977 cotton production.

The proportion of cotton production that has been contracted generally has been highest in irrigated areas, such as California, Arizona, and the Lower Rio Grande Valley of Texas, which are characterized by stable yields and high quality. Dryland areas, such as the Rolling Plains of Texas, typically have highly variable yields because of rainfall variability and also produce cotton of relatively low quality. Knowledgeable people report that the proportion of production contracted in these areas generally has been considerably lower than in the more stable irrigated areas.

Comparable data on the proportion of production contracted annually are not available for grain sorghum, wheat, and beef cattle. Data developed in special research inquiries, however, indicate that the level of forward contracting in these commodities has been considerably lower than for cotton. For example, one study indicates that less than 5 percent

of the total U.S. output of both feed grains and food grains in 1970 was produced under forward contracts or vertical integration [4].

Cattle contracts have been used for a number of years to sell stocker cattle or feeder cattle when they are in the stocker stage, 1 to 6 months before they move to the feedlot. The extent to which these contracts are used apparently varies from time to time, depending on the demand for and supply of beef cattle, wheat pasture conditions, and price outlook for wheat. There is some indication, however, that the use of cattle contracts has been more frequent during recent years.

There have been no previous research attempts to determine the relationship between the extent of contracting and the size of operating unit, and there has been little previous research to determine the frequency of use of the different types of contracts. For crops, the two major types have been to contract either (1) all the production from a specified number of acres or (2) a specified volume of production. Which of the two methods is used could have significant implications concerning the degree of risk incurred by the parties participating in the contract. If a specified volume is contracted, the proportion of total production that is contracted has additional implications to the producer regarding the degree of risk incurred and on optimal strategies to cope with price variability.

This study was conducted to develop, apply, and evaluate procedures for generating systematic estimates of the relationship between size of operating unit and such factors as types of market outlets, and the types of contracts made for major commodities produced in the Rolling Plains of Texas. The Rolling Plains was selected because it is a

diversified area in which cotton, grain sorghum, wheat, and beef cattle are major enterprises. Each of the commodities is of major importance in the Texas economy, and each is one for which secondary sources of information indicate there has been some activity in contracting. Although the study was restricted to the one specific region, the results should be useful in formulating related research inquiries for other areas and other commodities.

OBJECTIVES

Specifically, the objectives of the study were:

1. To develop a systematic method for generating estimates of the total volume of major commodities that are marketed in a region, specifically the Rolling Plains of Texas.

2. To apply the method to generate estimates of the total volume sold of each of the major commodities to major types of purchasers and in various markets for 1973, including the number of contracts made, the proportion of total sales contracted, and the amount sold under each type of contract for 1973.

3. To determine the relationship between the size of operating units and types of markets utilized, including the proportion of total sales contracted and the types of contracts for 1973.

Available information indicates that the use of forward contracts in the production and sale of wheat, grain sorghum, and beef cattle was at a high level in 1973 compared with previous years, although still well below the 1973 record high for cotton. The experience for 1973 should be indicative of developments during subsequent periods of tight supplies and high prices.

DESCRIPTION OF THE STUDY AREA

The Rolling Plains lies in West Central Texas, bounded on the west by the High Plains and on the east by the Cross Timbers. The study area was defined to coincide with Crop Reporting District 2, a 28-county area extending from Wheeler County on the extreme north to Coleman and Runnels Counties in the extreme south (Figure 1).

The Rolling Plains is an important producing area for cotton, beef cattle, wheat, and grain sorghum. Because of climate and soil differences, wheat occupies a larger portion of cropland and grain sorghum a smaller portion in the Northern Rolling Plains (Figure 1, Crop Reporting District 2-N) as compared with the southern portion (Figure 1, Crop Reporting District 2-S). Crops tend to be produced on an extensive basi because rainfall is low and variable (averaging annually about 20-28 inches), and relatively little crop acreage is irrigated due to a limite supply of water. Some very large ranching operations exist in the area but beef production is important through the area because a large propor tion of the land farmed is in native pasture, grazed mostly by cattle. Beef production systems include both cow-calf and stocker operations. Many of the stocker operations center around the grazing of wheat.

The data in Table 2 indicate that 1973 was an unusually favorable year in terms of crop production. Average yields for each of the thre major crops (cotton, wheat, and grain sorghum) were higher in 1973 than in other years over the period 1970-75. The favorable production outlo as the season progressed probably stimulated a greater interest in forward contracting than would otherwise have been the case. The year 197

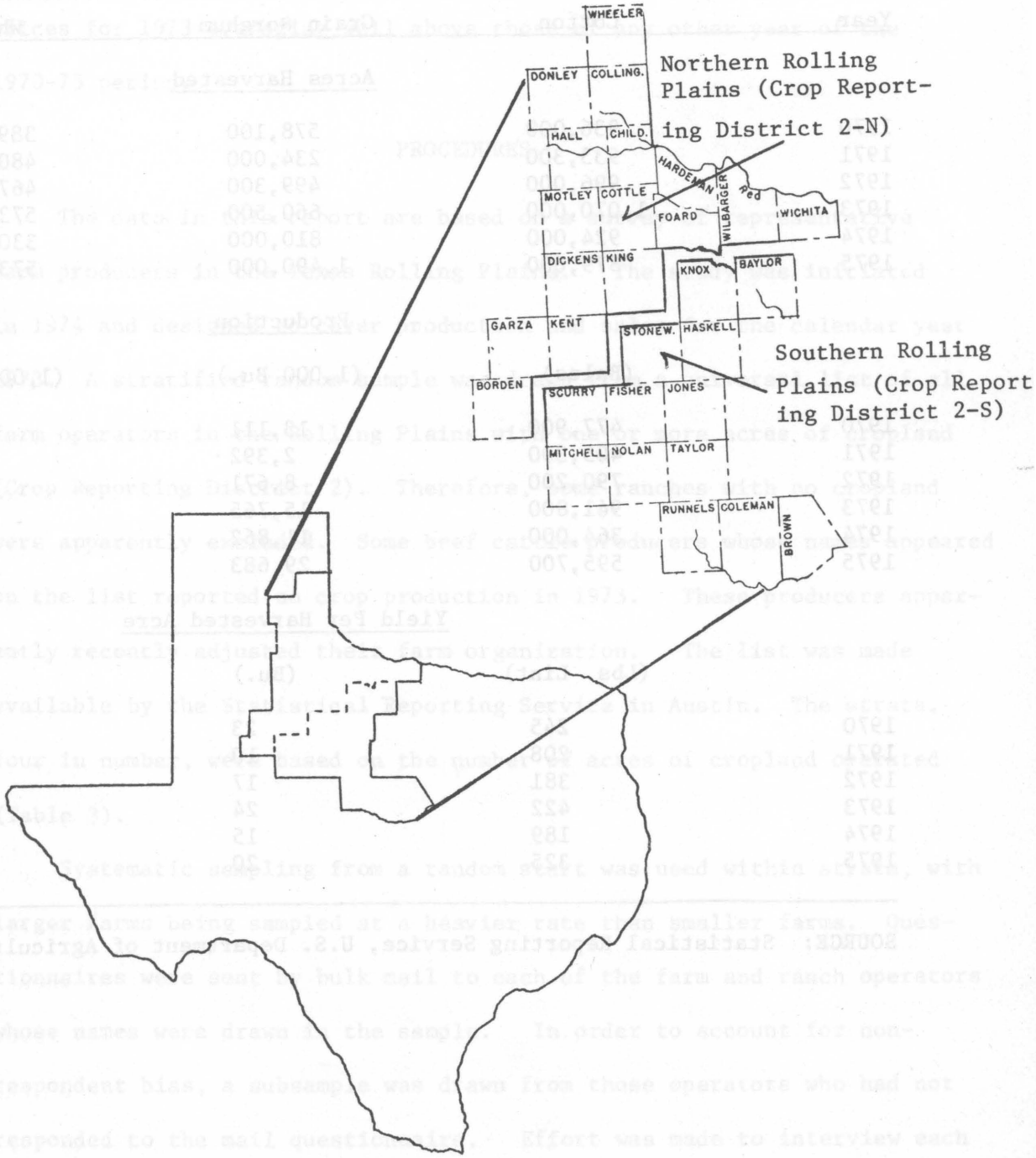


Figure 1. The Rolling Plains study area.

Table 2. Acres Harvested, Production and Average Yields Per Harvested Acre for Cotton, Grain Sorghum, and Wheat in the Rolling Plains of Texas, 1970-75

Year	Cotton	Grain Sorghum	Wheat
		Acres Harvested	
1970	936,000	578,100	389,000
1971	933,300	234,000	480,000
1972	996,000	499,300	467,000
1973	1,070,000	660,500	573,000
1974	924,000	810,000	330,000
1975	879,600	1,490,000	573,000
		Production	
	(Bales)	(1,000 Bu.)	(1,000 Bu.)
1970	477,900	13,111	11,524
1971	405,300	2,392	14,789
1972	790,200	8,671	16,398
1973	941,800	15,765	20,827
1974	364,000	11,862	8,704
1975	595,700	29,683	20,175
		Yield Per Harvested Acre	
	(Lbs. Lint)	(Bu.)	(Bu.)
1970	245	23	30
1971	208	10	31
1972	381	17	35
1973	422	24	36
1974	189	15	26
1975	325	20	35

SOURCE: Statistical Reporting Service, U.S. Department of Agriculture.

also was a relatively favorable one for beef cattle, with beef cattle prices for 1973 averaging well above those of any other year of the 1970-75 period.

PROCEDURES

The data in this report are based on a survey of representative farm producers in the Texas Rolling Plains. The study was initiated in 1974 and designed to cover production and sales for the calendar year 1973. A stratified random sample was drawn from a universal list of all farm operators in the Rolling Plains with one or more acres of cropland (Crop Reporting District 2). Therefore, some ranches with no cropland were apparently excluded. Some beef cattle producers whose names appeared on the list reported no crop production in 1973. These producers apparently recently adjusted their farm organization. The list was made available by the Statistical Reporting Service in Austin. The strata, four in number, were based on the number of acres of cropland operated (Table 3).

Systematic sampling from a random start was used within strata, with larger farms being sampled at a heavier rate than smaller farms. Questionnaires were sent by bulk mail to each of the farm and ranch operators whose names were drawn in the sample. In order to account for non-respondent bias, a subsample was drawn from those operators who had not responded to the mail questionnaire. Effort was made to interview each of the operators in the subsample by telephone. The number of usable questionnaires obtained from the mail-out sample and the telephone interview subsample are shown in Table 3. Aggregate estimates were developed

Table 3. Sample Size and Survey Response of Study, Rolling Plains of Texas, 1973

Acres cropland	Universe	Mail-out sample	Mail sample response	Mail sample response	Telephone interview sample	Questionnaires completed by telephone	Total questionnaires completed
	No.	No.	No.	Percent	No.	No.	No.
1 - 149	6,560	819	191	23	44	34	225
150 - 599	7,073	1,769	412	23	126	94	506
600 - 1,999	1,821	911	193	21	120	92	285
2,000 +	83	83	19	23	30	25	44
Total	15,537 1/	3,582	815	23	320	245	1,060

1/ Total farm and ranch units.

SOURCE: Study Field Survey.

for the study area by size strata, with the universe separated in two portions - the mail response portion and telephone interview portion.

The survey was used to develop estimates of the total volume of production and sales, types of market outlets, and volume of contracts for cotton, grain sorghum, wheat, and beef cattle. The procedures permitted analysis of the relation of each of these items to the size of the operating unit. In addition, the data developed on contracting included types and sources of contracts and analysis of the relationship of the volume contracted to total area production and sales. In generating the estimates in this report, maximum use was made of check data from reports of the Statistical Reporting Service and other secondary sources of information.

The elimination from the sampling list of all ranches with no cropland means that some land in farms and some beef producing units were excluded from this study. Based upon a comparison of estimates derived from the study sample with other available statistical data, the extent of exclusions was minor. Some differences in the estimates would be expected due to random variations in the samples. But, assuming that the estimates are correct, only 9 percent of the land in farms and about 8 percent of the beef cattle in the study area were excluded from this analysis as a result of the sampling procedure.

The marketing practices of large commercial cattle feedlot operations also are not included in this study. There are some small cattle feedlots located in the Rolling Plains, but cattle feeding is important only in connection with the large scale commercial cattle feedlot operations. A 1968 study revealed that more than 90 percent of the cattle fed

in the large commercial feedlots located in the Southern Plains were sold directly to packers. A subsequent study in 1972 analyzed the direct selling methods employed by Texas Panhandle feedlots [1, 2].

A high proportion of the fat cattle marketed from the Rolling Plains feedlots are sold directly to packers. It is generally known that meat packers have relatively few cattle fed on a custom basis and purchase very few cattle from feedlots under advance sales contracts. Under the seasonal feeding conditions that prevail in connection with small feedlot operations, it would seem that packers could effectively use contracts or custom feeding in order to assure supplies of meat animals for more efficient utilization of slaughtering plants. However, cattle feeding in the Southern Plains is highly concentrated in the large feedlots that operate on a year-round basis. Packing plants have located in close proximity to these feedlots and apparently have adequate supplies.

LAND UTILIZATION

Based on aggregate estimates from the sample survey, land in farms in the Rolling Plains totals approximately 14 million acres, of which about 30 percent consists of cropland. Nearly four-fifths of all cropland was planted in either cotton, grain sorghum, or wheat in 1973 (Table 4). Cropland not planted in cotton, grain sorghum, or wheat was used primarily for oats, barley, forage, or specialty crops (primarily guar) or was idle. No other single crop, however, approached cotton, grain sorghum, or wheat in the number of acres planted.

Table 4. Land Use in the Rolling Plains of Texas, 1973

Item	Northern Rolling Plains	Southern Rolling Plains	Total
Total land in farms (1,000 acres)	7,270	6,751	14,021
Land Utilization (percent)			
Cotton 1/	10	14	12
Grain sorghum 2/	3	8	5
Wheat 1/	9	8	9
Native pasture	69	55	62
Other 3/	9	15	12
Total	100	100	100
Cattle (head per 1,000 acres of farmland)			
Beef brood cows 4/	42	41	41
Other cattle and calves	26	43	35
All cattle and calves	68	84	76

1/ Acres planted.
2/ Acres planted for grain.
3/ Land planted in crops other than cotton, grain sorghum or wheat, and idle land or waste.
4/ Includes replacement heifers.

SOURCE: Study Field Survey.

In the Northern Rolling Plains, a larger portion of the land was in native pasture than in the Southern Rolling Plains (69 percent in the North, compared with 55 percent in the South). Differences in cropland utilization also were significant between the North and South. Cotton and grain sorghum occupied a larger portion of the land area in the South, while wheat was relatively more important in the North. In both the North and the South, however, a larger portion of the cropland was planted in cotton than in any other crop.

Beef cattle production is the only important livestock enterprise in the Rolling Plains. On the average, there was no significant difference between the two areas in terms of beef brood cows per 1,000 acres of farmland. However, as of December 31, 1973, there were 23 percent more cattle and calves per 1,000 acres of farmland in the southern part of the area than in the northern part (Table 4). This higher stocking rate is apparently the result of somewhat higher rainfall and added grazing provided by winter grains. More than two-thirds of all farm operators in the Rolling Plains produced beef in 1973, 6 out of 10 operators in the northern part of the area and 7 out of 10 in the southern part (Table 5).

There was a relationship between the number of acres in cropland and number of farm operators that produced beef in 1973. About 68 percent of the farm operators with 1 - 149 acres of cropland produced beef, as compared with 90 percent of all operators with 2,000 acres or more (Table 6).

Some beef producers did not sell beef cattle in 1973. Although two-thirds of all farm operators produced beef, only 60 percent, on the

Table 5. Farm Operators Producing Beef Cattle in 1973 and Beef Cattle Inventory, December 31, 1973, Rolling Plains of Texas

Item	Northern Rolling Plains	Southern Rolling Plains	Total
Field Survey Data			
Farm Operators	6,512	9,025	15,537
Beef producers	3,992	6,485	10,477
Percent of operators	61	72	67
Cattle Inventory			
Beef brood cows	275,427	259,638	535,065
Other cattle and calves	217,370	308,825	526,195
All cattle and calves	492,797	568,463	1,061,260
SRS Data 1/			
Beef cows that have calved	225,000	215,000	440,000
Cattle on feed	61,000	94,000	155,000
All cattle and calves	637,000	685,000	1,322,000

1/ SRS inventory pertains to January 1, 1974.

SOURCE: Study Field Survey and Texas Livestock Statistics, 1973, Statistical Reporting Service, USDA.

Table 6. Relationship Between Number of Cropland Acres in the Farm and Farm Operators That Produced and Sold Beef Cattle, Rolling Plains of Texas, 1973

Number of acres of cropland	Total, farm operators	Farm operators producing beef		Farm operators selling beef cattle	
	No.	Number	Percent	Number	Percent
1 - 149	6,560	4,444	68	3,911	60
150 - 599	7,073	4,605	65	4,159	59
600 - 1,999	1,821	1,353	74	1,246	68
2,000 and over	83	75	90	74	89
Total	15,537	10,477	67	9,390	60

SOURCE: Study Field Survey.

average sold beef cattle in 1973 (Table 6). Ninety percent of all farm operators that produced beef in 1973 sold beef cattle. By number of acres in cropland, beef producers that sold beef cattle included 88 percent of all beef producers with 1 - 149 acres, 90 percent of all beef producers with 150 - 599 acres, 92 percent of all beef producers with 600 - 1,999 acres, and 99 percent of all beef producers with 2,000 acres and over.

CONCENTRATION OF PRODUCTION

Since World War II, an increasing proportion of total production in American agriculture has come from large, highly commercialized farm units. For the United States as a whole, for example, the 1969 Census of Agriculture indicates that only 2 percent of the farms accounted for over one-third of the gross value of all sales.

Concentration of crop production among larger farms appears to be much less pronounced in the Rolling Plains. Farms with over 600 acres of cropland accounted for approximately one-fifth of the total number of all farms in the area and from two-fifths to one-half of the total volume of production of cotton, grain sorghum, and wheat (Table 7). Farms with 2,000 or more acres of cropland accounted for approximately 1 percent of the total number of farms but less than 10 percent of the total volume of production for each of the three major crops. The concentration of production among larger farms was greater for grain sorghum and wheat than for cotton, which is a more intensive crop.

The concentration of production is substantially higher for beef than for crops in the Rolling Plains. Beef cattle producers were

Table 7. Cotton, Grain Sorghum, and Wheat: Percentage Distribution of Number of Farms and Volume of Production by Number of Cropland Acres in Farms, Rolling Plains of Texas, 1973

Number of acres of cropland	Cotton		Grain sorghum		Wheat	
	No. of farms	Volume of production	No. of farms	Volume of production	No. of farms	Volume of production
	Percent					
1 - 149	26	9	20	4	19	5
150 - 599	55	50	61	45	59	52
600 - 1,999	18	38	18	46	21	34
2,000 and over	1	3	1	5	1	9
Total	100	100	100	100	100	100

SOURCE: Study Field Survey.

classified both on the basis of brood cow herd size and total beef cattle sales. In terms of brood cow herd size, beef producers with 500 or more brood cows sold about 17 percent of the cattle. Producers with 100 or more brood cows sold half of the cattle in 1973 (Table 8).

Seven percent of the beef producers in the Rolling Plains had no brood cows in 1973, and these producers sold more than their proportional share of the cattle, about 12 percent. These were mainly beef producers that utilized wheat for grazing weaned calves or stocker calves being conditioned for the feedlot. In this area, winter wheat, which is planted in October and harvested in June of the following year, can be grazed for about 4 or 4 1/2 months, from November through the middle of March. Sometimes, depending upon the price relationship between beef and wheat grain, the planted wheat may be grazed out rather than harvested for grain. In this case, the wheat can furnish several more months of grazing. A number of these beef and/or wheat producers have no brood cows, but purchase calves specifically for grazing the wheat or other pasture. The number of brood cows is not a good indication of the size of operation because beef producers, even those with no brood cows, may have large stocker or yearling enterprises.

Classification of beef producers, in terms of the number of beef cattle sold, reveals a high concentration of production. Two percent of the beef producers accounted for 31 percent of the cattle sold, and only 7 percent of the producers sold more than half of the cattle in the Rolling Plains area in 1973. These sales primarily include calves moving to the intermediate grow-out stage and feeder cattle moving to feedlot operations, but also include the sale of breeding stock,

Table 8. Farm Operators Producing Beef Cattle and Cattle Sold, Classified by Brood Cow Herd Size and Number of Cattle Sold, Rolling Plains of Texas, 1973

Classification	Beef cattle producers		Cattle sold	
	Number	Percent	Number	Percent
Brood Cow Herd Size				
0	709	7	77,671	12
1 - 19	4,136	39	52,116	8
20 - 59	3,469	33	143,033	21
60 - 99	837	8	58,459	9
100 - 199	835	8	109,642	16
200 - 499	374	4	110,095	17
500 and over	117	1	114,981	17
All groups	10,477	100	665,997	100
Beef Cattle Sales				
0	1,087	10	0	0
1 - 19	3,935	38	33,300	5
20 - 59	2,948	28	93,239	14
60 - 99	849	8	59,940	9
100 - 199	999	9	133,199	20
200 - 499	476	5	139,860	21
500 and over	183	2	206,459	31
All groups	10,477	100	665,997	100

SOURCE: Study Field Survey.

cull cattle, and some fat cattle that have been fed by producers in their own small feedlots or in large feedlots on a custom basis. Overall, fed cattle sales were not important since known feedlot operations were excluded from the analysis. About 2 percent of the producers reported selling fed cattle, and the number of fed cattle sold was equal to about 6 percent of the total cattle sales.

MARKET OUTLETS

Producers of each of the major field crops—cotton, grain sorghum, and wheat—were asked to indicate the type of purchaser to whom they sold their products and the volume sold to each type. Beef producers were asked to specify the number of cattle and calves sold in each type of market by type of buyer. Their responses are summarized in the following discussion.

Cotton

Cotton production during 1973 in the Rolling Plains was estimated at approximately 942,000 bales. About 95 percent of 1973 production, or almost 894,000 bales, had been sold by the time of the survey.

Local merchants or buyers purchased over one-half or 57 percent of all the cotton sold (Table 9). In some instances, the local merchant may only have acted as a broker or agent for an outside buyer and did not actually purchase the cotton himself. Consequently, the 57 percent purchased by local merchants, indicated in Table 9, may overstate slightly the importance of this group. Effort was made to determine the actual purchaser, but in some instances the producer did not know or was not sure whether the local merchant actually purchased the cotton or only acted as an agent.

Table 9. Cotton: Estimated Number of Bales Sold and Percentage Distribution by Type of Purchaser, Rolling Plains of Texas, 1973

Type of purchaser	Bales sold	Distribution of bales sold
	Number	Percent
Local merchant	504,979	57
Central market merchant	156,409	17
Independent gin	58,095	7
Cotton mill	894	1/
Cooperative association	134,065	15
Foreign buyer	29,495	3
Other	9,831	1
Total	893,768	100

1/ Less than .5 percent.

SOURCE: Study Field Survey.

Central market merchants purchased 17 percent of the cotton sold, while cooperative associations were next in importance in volume of purchases, accounting for 15 percent of the total 894,000 bales sold (Table 9). Central market merchants were defined as those residing in major market centers outside the local trade area, such as Dallas, Memphis, and Lubbock. Each of the remaining groups accounted for less than 10 percent of the total purchases.

The relationship of the size of operating unit to type of purchaser is indicated in Table 10. This relationship is indicated for both the number of purchases and the volume purchased. Size of operating unit is measured in terms of total number of acres of cropland operated.

Central market merchants tended to be relatively more important as purchasers from the larger size units, while independent cotton gins tended to be relatively more important as purchasers from smaller size units. The relationship between size of operation and type of purchaser, however, was not very consistent or pronounced.

The number of acres of cropland may not be a very good indication of the size of the cotton enterprise. The reason is that the proportion of cropland in cotton may differ substantially from farm to farm. The relationship between the number of acres planted to cotton and type of purchaser should be a more accurate indication than acres of cropland of the effect of scale of cotton operations on market outlets (Table 11).

When size is measured only in terms of the number of acres planted in cotton, there is a much more consistent and pronounced tendency for a greater proportion of sales among the larger size units to be made to central market merchants. Growers who planted less than 100 acres of

Table 10. Cotton: Percentage Distribution of Number and Volume of Sales According to Type of Purchaser and Acres of Cropland, Rolling Plains of Texas, 1973

Type of purchaser	Acres of cropland				
	1-149	150-599	600-1,999	2,000 & over	Total
	Number of Sales Reported				
	- - - - Percent - - - -				
Local merchant	61	52	60	63	56
Central market merchant	2	14	14	10	11
Independent cotton gin	18	12	10	12	13
Cotton mill	1/	1/	1/	1/	1/
Cooperative association	13	18	14	3	16
Foreign buyer	6	2	1/	12	3
Other	1/	2	1	1/	1
Total	100	100	100	100	100
	Number of Bales Sold				
	- - - Percent - - -				
Local merchant	60	61	49	63	57
Central market merchant	3	14	26	11	18
Independent cotton gin	6	7	6	4	6
Cotton mill	1/	1/	1/	1/	1/
Cooperative association	13	14	18	2	15
Foreign buyer	18	2	1/	20	3
Other	1/	2	1	1/	1
Total	100	100	100	100	100

1/ Less than .5 percent.

SOURCE: Study Field Survey.

Table 11. Cotton: Percentage Distribution of the Number and Volume of Sales According to Acres of Cotton and Type of Purchaser, Rolling Plains of Texas, 1973

Type of purchaser	Acres of cotton planted				
	1-99	100-249	250-499	500 & over	Total
	Number of Sales Reported				
	- - - - Percent - - - -				
Local merchant	54	63	48	54	56
Central market merchant	6	11	15	23	11
Independent cotton gin	20	15	3	5	13
Cotton mill	1/	1/	1/	1/	1/
Cooperative association	20	11	17	17	16
Foreign buyer	0	0	13	1	3
Other	0	1/	5	1/	1
Total	100	100	100	100	100
	Number of Bales Sold				
	- - - Percent - - -				
Local merchant	52	66	56	51	57
Central market merchant	6	12	13	28	18
Independent cotton gin	12	12	1	4	6
Cotton mill	1/	1/	1/	0	1/
Cooperative association	30	10	16	15	15
Foreign buyer	0	0	11	2	3
Other	1/	1/	3	1/	1
Total	100	100	100	100	100

1/ Less than .5 percent.

SOURCE: Study Field Survey.

cotton made about 6 percent of their sales to central market merchants, compared with almost one-fourth of the sales for cotton growers who planted 500 acres or more (Table 11).

The proportion of cotton purchases by independent cotton gins and by cooperative associations, on the other hand, was greatest among the small cotton producers (those who planted less than 100 acres). No relationship was indicated between number of cotton acres planted and the proportion of sales made to local merchants. Local merchants purchased about 50 percent or more of the cotton sold by each size group. Cotton mills and foreign buyers purchased only a minor portion, about 3 percent, of 1973 production in the Rolling Plains. However, foreign buyers did not purchase from small cotton producers (those with less than 250 acres of cotton) and purchased very little cotton from the largest producers (those with 500 acres or more in 1973).

Grain Sorghum

The 1973 production of grain sorghum in the Rolling Plains was estimated at 20.8 million bushels, of which 19.3 million bushels, or 92.8 percent, had been sold by the time of the survey. Local elevators or grain dealers purchased about 4 out of 5 bushels sold (Table 12). Central market elevators, cooperative associations, and feedlots next in importance in volume of purchases, each accounted for less than 5 percent of total grain sorghum purchases. Foreign buyers purchased only a nominal amount.

There appeared to be no significant relationship between the size of operating unit (measured in acres of cropland) and the type of purchaser (Table 13). Local elevators or grain dealers purchased 70

Table 12. Grain Sorghum: Estimated Number of Bushels Sold and Percentage Distribution by Type of Purchaser, Rolling Plains of Texas, 1973

Type of purchaser	Bushels sold	Distribution of bushels sold
	Number (1,000)	Percent
Local independent elevator or grain dealer	15,459	80
Central market elevator	832	4
Cooperative association	813	4
Feedlot	677	4
Foreign buyer	19	1/
Other	1,548	8
Total	19,348	100

1/ Less than .5 percent.

SOURCE: Study Field Survey.

Table 13. Grain Sorghum: Percentage Distribution of Number and Volume of Sales According to Type of Purchaser and Acres of Cropland, Rolling Plains of Texas, 1973

Type of purchaser	Acres of cropland				
	1-149	150-599	600-1,999	2,000 & over	Total
	Number of Sales Reported				
	- - - - Percent - - - -				
Local elevator or grain dealer	62	84	83	80	79
Central market elevator	0	4	3	0	3
Cooperative association	2	2	6	0	3
Feedlot	36	6	6	20	12
Foreign buyer	0	1/	0	0	1/
Other	0	4	2	0	3
Total	100	100	100	100	100
	Number of Bushels Sold				
	- - - - Percent - - - -				
Local elevator or grain dealer	70	85	75	86	80
Central market elevator	0	5	4	0	4
Cooperative association	6	1	7	0	4
Feedlot	24	3	2	14	4
Foreign buyer	0	1/	0	0	1/
Other	0	6	12	0	8
Total	100	100	100	100	100

1/ Less than .5 percent.

SOURCE: Study Field Survey.

percent or more of the total amount sold for each of the four size groups. The data in Table 13 indicate that almost one-fourth of the grain sorghum sold by producers with less than 150 acres of cropland was to feedlots. That estimate is based on only a few observations, however, and has a high estimating error.

Wheat

Estimated wheat production in the Rolling Plains in 1973 amounted to 15.8 million bushels, of which 14.9 million bushels, or 94.4 percent, had been sold by the time of the survey. Over four-fifths, 84.2 percent, was sold to local elevators or grain dealers (Table 14). Cooperative associations were second in importance, purchasing 11 percent of the total amount sold. No other group accounted for more than 3 percent of total purchases.

The relationship between the type of purchaser and size of operating unit is shown in Table 15. Again, the size of operating unit is measured in terms of the total number of acres of cropland. Unlike cotton and grain sorghum producers, the operators of large units sold a greater proportion of wheat to cooperative associations than did the operators of the smaller size units. For example, on farms with 2,000 acres or more of cropland, nearly one-fourth, 24 percent, of the wheat sold was to cooperative associations as compared with only 7 percent on farms with less than 150 acres of cropland. The proportion of wheat sold to local elevators or grain dealers showed a reverse relationship. The proportion sold to local elevators averaged 91 percent on farms of less than 150 acres cropland, as compared with 72 percent on farms of 2,000

Table 14. Wheat: Estimated Number of Bushels Sold and Percentage Distribution by Type of Purchaser, Rolling Plains of Texas, 1973

Type of purchaser	Bushels sold	Distribution of bushels sold
	Number (1,000)	Percent
Local elevator or grain dealer	12,531	84
Central market elevator	431	3
Cooperative association	1,637	11
Flour mill	15	1/
Foreign buyer	0	0
Other	268	2
Total	14,882	100

1/ Less than .5 percent.

SOURCE: Study Field Survey.

Table 15. Wheat: Percentage Distribution of Number and Volume of Sales, According to Type of Purchaser and Acres of Cropland, Rolling Plains of Texas, 1973

Type of purchaser	Acres in cropland				
	1-149	150-599	600-1,999	2,000 & over	Total
	Number of Sales Reported				
	- - - - Percent - - - -				
Local elevator or grain dealer	91	82	81	78	83
Central market elevator	0	8	2	0	6
Cooperative association	6	9	15	17	10
Flour mill	0	0	0	3	1/
Foreign buyer	0	0	0	0	0
Other	3	1	2	2	1
Total	100	100	100	100	100
	Number of Bushels Sold				
	- - - Percent - - - -				
Local elevator or grain dealer	91	89	79	72	84
Central market elevator	0	5	1	0	3
Cooperative association	7	6	16	24	11
Flour mill	0	0	0	2	1/
Foreign buyer	0	0	0	0	0
Other	2	1/	4	2	2
Total	100	100	100	100	100

1/ Less than .5 percent

SOURCE: Study Field Survey.

acres or more. Other types of purchases did not account for more than 5 percent of total purchases for any size group.

Beef Cattle

An estimated 90 percent of all beef cattle producers in the Rolling Plains sold beef cattle in 1973. These operators, for the most part, used five different markets or types of buyers (Table 16). Market use information pertaining to other types of markets not shown in Table 16, including "cattle trader", cooperative, and special sales (on-farm auctions, etc.) was obtained in the survey. No beef producers reported utilizing cooperative markets. The use of special sales was insignificant, including less than 0.1 percent of the producers and cattle marketed. About 4 percent of the beef producers sold less than 3 percent of the beef cattle to "cattle traders" in 1973. In this analysis, the data pertaining to "cattle trader" are included in the category of "order buyer", and the data pertaining to "special sales" are included in the "other" category. The data represent markets utilized by cattle producers only. As an example, some beef cattle are marketed through auctions by cattle traders who are not classified as beef cattle producers. To this extent, the frequency of use of some markets is underestimated. The data on cattle sold represent cattle sold by producers through markets rather than the total number of cattle marketed by producers in the area. It is possible that some cattle are sold through markets more than one time. As an example, it is possible that some young calves sold through auctions are purchased by producers, raised to feeder weights and sold again through an auction. Thus, the total

Table 16. Type of Market Utilized or Buyer and Number of Cattle Sold by Beef Producers, Rolling Plains of Texas, 1973

Type of market or buyer	Number	Percent
	Beef Producers	
Auction	8,040	86
Feedlot	119	1
Packer	140	2
Order buyer	1,451	15
Farmer	419	4
Other	100	1
Total	10,269	109 1/
	Beef Cattle Sold	
Auction	309,770	47
Feedlot	26,899	4
Packer	39,011	6
Order buyer	269,843	40
Farmer	12,404	2
Other	8,070	1
Total	665,997	100

1/ Some beef producers utilized more than one type of market. There were 9,390 beef producers who sold cattle in 1973. The difference between 9,390 and 10,269 reflects the frequency with which the 9,390 producers utilized more than one type of market. The percentage shown above reflects the proportion of the 9,390 producers who utilized each type of market.

SOURCE: Study Field Survey.

number of cattle involved in all sales in the area are somewhat less than the number of cattle in the area.

Eighty-six percent of the producers that sold beef cattle utilized auctions, 15 percent of the producers sold cattle through order buyers, and 4 percent of the producers sold cattle and calves directly to other farmers and ranchers. Only 9 percent of the producers sold cattle or calves in more than one type of market. Less than one percent utilized more than two types of market. No information was available concerning the number of times that a producer may have utilized the same market.

Markets utilized by beef cattle producers is not a good measure of the relative importance of each market in terms of proportion of beef cattle sold. Although 86 percent of the producers utilized auction markets, only 47 percent of all cattle and calves were sold through auctions by producers in 1973 (Table 16). Although only 15 percent of the producers sold cattle and calves through order buyers, 40 percent of all cattle and calves sold were sold through order buyers.

A breakdown of markets utilized by size of beef cattle operations reveals that small producers tend to utilize auction markets and large producers tend to sell through order buyers. A high proportion of the larger producers, producers that sold more than 100 cattle, sold cattle in more than one type of market (Table 17). More than half of all beef cattle sold through auctions were sold by producers that sold less than 100 beef cattle. These producers sold only 28 percent of the beef cattle marketed by producers in 1973. Although beef cattle producers

Table 17. Type of Cattle Buyer or Market Utilized by Beef Producers and Cattle Sold Classified by Total Cattle Sales, Rolling Plains of Texas, 1973

Type of market or Buyer	Size of beef cattle sales						
	1-19	20-59	60-99	100-199	200-499	500 and over	Total
	Percent of Beef Producers Selling Cattle by Sales Groups						
Auction	88	92	84	86	51	24	86
Feedlot	0	1/	4	4	4	12	1
Packer	1/	1	1/	6	3	19	2
Order buyer	6	6	11	50	68	68	15
Farmer	6	3	9	2	1	3	4
Other	1	1	1/	1/	2	2	1
Total 2/	101	103	108	148	129	128	109
	Percent of Beef Cattle Sold by Sales Groups						
Auction	91	92	79	52	33	14	47
Feedlot	0	1/	4	3	3	8	4
Packer	1/	1/	1/	1	2	17	6
Order buyer	3	5	12	42	60	58	40
Farmer	5	2	5	2	1/	1	2
Other	1	1	1/	1/	2	2	1
Total	100	100	100	100	100	100	100
	Percent of Beef Cattle Sold by Type of Market						
Auction	10	28	16	22	15	9	100
Feedlot	0	1	9	13	15	62	100
Packer	1/	1	1/	4	8	87	100
Order buyer	1/	2	3	21	31	43	100
Farmer	13	16	25	24	2	20	100
Other	6	10	1/	3	25	56	100
All markets	5	14	9	20	21	31	100

1/ Less than 0.5 percent.
2/ Some beef producers utilized more than one type of market.

SOURCE: Study Field Survey.

that sold 200 or more cattle marketed 52 percent of all beef cattle sold in 1973, they accounted for 74 percent of all cattle sold through order buyers.

A higher proportion, 19 percent, of the beef producers in the largest size group sold to packers. These producers accounted for 87 percent of all cattle sold to packers by all producers included in the field survey. Sales to packers mainly represent the sale of fed cattle. A higher proportion of the producers in the largest size group apparently have integrated beef operations including both cattle raising and cattle feeding. A higher proportion of the beef producers in the largest size group also sold feeder cattle direct to feedlots.

The figures on the types of markets or buyers in Table 17, while indicating the types of markets utilized by beef producers, do not allow a complete analysis of the movement of beef cattle through the markets for various purposes. As an example, about 40 percent of the beef cattle produced, other than fat cattle marketed from large commercial feedlots, were sold through order buyers. However, order buyers also purchased a high proportion of the beef cattle sold through auctions—about 47 percent in 1973. Therefore, a high proportion of all cattle purchased by beef producers is obtained through order buyers. Order buyers purchase cattle both from and for the larger beef producers. A high proportion of their purchases includes cattle being moved to feedlots. However, they also purchase many cattle for beef producers that precondition them before they are purchased by cattle feeders. In the Rolling Plains beef producers precondition many cattle on wheat and other types of cropland pasture. During favorable weather excess

forage on permanent pasture is also utilized to precondition cattle. Beef producers utilizing these pastures for preconditioning beef enterprises require large herds of stocker type cattle. Order buyers that deal in many markets over wide areas can obtain specific types of stocker cattle for these producers that may require many cattle of similar age, weight and conformation. The cattle purchasing activities of beef producers were not obtained in this study, but it is common knowledge that order buyers supply many beef producers with stocker cattle and then purchase these cattle, after the grazing season, for feedlot operations.

USE OF CONTRACTS IN 1973

One of the major purposes of this analysis was to determine the extent to which contracts were used in 1973, the relationship between size of operation and use of contracts, the types of contracts made, and the types of buyers who were most active in purchasing by contract. Questions were included in the questionnaire which were designed to develop this information (see appendix). The results are summarized in the following sections.

Crop Contracts

Proportion of Growers Contracting

Slightly over one-fourth, or 27 percent, of all active cropland operators made a contract for the sale of either cotton, grain sorghum, or wheat in 1973 (Table 18). However, the proportion was substantially higher for operators of the larger size units. About one-half or more of those who operated 600 or more acres of cropland made a contract for

Table 18. Estimated Number of Cropland Operators and the Proportion Who Made a Contract for the Sale of Cotton, Grain Sorghum or Wheat by Number of Acres in Cropland, Rolling Plains of Texas, 1973

Acres in cropland	Active cropland operators: Total number 1/	Sold under contract: Number	Sold under contract: Percent
1 - 149	5,255	715	14
150 - 599	6,152	1,944	32
600 - 1,999	1,726	849	49
2,000 and over	80	45	56
Total	13,213	3,553	27

1/ Does not include operators included in the sample who had recently sold their property, retired or were not actively involved in farming during the 1973 production year. Also does not include ranch operators who had no cropland.

SOURCE: Study Field Survey.

one or more crops. In contrast, only about 14 percent of the operators of units with less than 150 acres of cropland made a contract.

Contracts for cotton were far more common in 1973 than for either grain sorghum or wheat. About two-fifths of all cotton growers made a contract for that crop, as compared with about one-tenth of the grain sorghum growers and 4 percent of the wheat growers (Table 19). For each of the three crops (cotton, grain sorghum, and wheat), a substantially larger proportion of the operators of large size units made contracts than did the operators of small size units.

Crop contracts were made with considerably more frequency in the southern portion of the Rolling Plains study area than in the northern portion (Table 20). This was true for each of the three major crops. For example, about one-half of all those planting cotton in the Southern Rolling Plains contracted for all or a portion of their crop in 1973, whereas only slightly over one-fourth of those planting cotton in the Northern Rolling Plains made a contract.

The data in Table 19 indicate that contracts for cotton were made with considerably more frequency than contracts for either grain sorghum or wheat and that there was a pronounced relationship between use of the contracts and the size of operations measured in acres of cropland. If the analysis is restricted to cotton and if size be measured in terms of acres of cotton planted, rather than acres of cropland, the relationship is even more pronounced (Table 21). Approximately one-fourth of the growers who planted less than 100 acres in cotton contracted all or a portion of their crop, compared with about three-fourths of the growers who planted 500 acres or more of cotton. A similar analysis for grain

Table 19. Estimated Number of Cropland Operators Planting Cotton, Grain Sorghum, and Wheat and the Proportion Who Made Contracts, Rolling Plains of Texas, 1973

Item	Crop		
	Cotton	Grain sorghum	Wheat
Number of operators planting	8,048	5,874	6,874
Number of operators contracting	3,201	570	240
Operators contracting by acres in cropland		Percent	
1 - 149	34	1	0
150 - 599	39	13	3
600 - 1,999	49	14	10
2,000 and over	65	22	7
All farms	40	10	4

SOURCE: Study Field Survey.

Table 20. Proportion of Cotton, Grain Sorghum, and Wheat Growers Who Made a Contract, Northern Rolling Plains, Compared with Southern Rolling Plains of Texas, 1973

Crop	Farm operators by area					
	Northern Rolling Plains		Southern Rolling Plains		Total study area	
	Planting	Contracting	Planting	Contracting	Planting	Contracting
	Number	Percent	Number	Percent	Number	Percent
Cotton	3,745	29	4,303	50	8,048	40
Grain sorghum	2,116	1/	3,758	15	5,874	10
Wheat	2,906	3	3,968	4	6,874	4

1/ Less than .5 percent.

SOURCE: Study Field Survey.

Table 21. Cotton: Relationship of the Proportion of Cotton Growers Contracting Cotton to the Number of Cotton Acres Planted, Rolling Plains of Texas, 1973

Cotton acres planted	Farm operators by area					
	Northern Rolling Plains		Southern Rolling Plains		Total study area	
	Planting	Contracting	Planting	Contracting	Planting	Contracting
	Number	Percent	Number	Percent	Number	Percent
1 - 99	1,483	18	1,502	35	2,985	27
100 - 249	1,281	22	1,644	44	2,925	34
250 - 499	715	43	650	78	1,365	59
500 and over	266	78	507	75	773	76
Total	3,745	29	4,303	50	8,048	40

SOURCE: Study Field Survey.

sorghum and wheat was not done because there was a much smaller number of contracts made for those two crops.

Types of Crop Contracts

Nearly all the crop contracts that were made in the Rolling Plains area in 1973 could be classified as forward pricing contracts or advanced sale agreements. Production practices generally were not specified other than the prohibition of certain harvesting practices, such as picking cotton from the ground. In addition, the contract usually contained a statement that the producer agreed to practice good farming methods in the production and harvesting of the crop.

The contracts usually specified a price in relation to a stated quality, although there were some variations. One exception was the very limited use of the "hog round" contract for cotton. This type of contract specified a certain price for all cotton produced on an identified acreage or, much less commonly, for a specified number of bales. Because the quality of cotton produced in the Rolling Plains area is variable and below the U.S. average, the most common practice was to relate price in some way to quality. The most frequently used method of doing this was a point-over-loan system. This method specified a certain price margin over what the cotton produced would bring in the government loan program. Grain contracts usually specified a price in relation to a standard quality, with price deductions for low qualities.

Two methods were used to specify the amount of production covered by the contract. The most commonly used method for all three commodities was to state that the contract covered all production from a

specified number of acres, usually described by ASCS farm numbers or some other method of indicating location. The second method was to state a certain volume, either bales, bushels, or hundredweight. This method, of course, involves more risk for the producer since he is committing himself to deliver a certain quantity of production before he knows what his production will be. In an area of highly variable yields, such as the Rolling Plains, contracting by volume involves particular risk, even though it is the method usually preferred by purchasers. When the production of a product is low or when the product is in short supply, as was the case for cotton in 1973, buyers are apparently more willing to contract to purchase all of the amount produced on a certain number of acres. Under these conditions, the buyer apparently runs little risk of purchasing too large a quantity. In this respect, 1973 was an atypical year.

Although the majority of those contracting each of the three crops (cotton, grain sorghum, and wheat) contracted by acres rather than by volume, the proportion contracted by acres was considerably greater for cotton than for either of the other two crops (Table 22). Only 4 percent of the growers contracting cotton contracted by volume, as compared with 26 percent of those contracting grain sorghum and 35 percent of those contracting wheat.

It is not possible to make a very precise estimate of the proportion of total crop production that was contracted in the Rolling Plains. The difficulty is that some of the growers who contracted by acres did not contract all of the acres which they planted or harvested. It was not

Table 22. Number of Growers Contracting Cotton, Grain Sorghum, and Wheat, Classified According to Whether the Contract Was by Acres or by Volume, Rolling Plains of Texas, 1973

Crop	Number, growers contracting	Growers contracting by acres		Growers contracting by volume	
		Number	Percent	Number	Percent
Cotton	3,201	3,074	96	127	4
Grain sorghum	570	422	74	148	26
Wheat	240	153	64	87	36

SOURCE: Study Field Survey.

feasible in the questionnaire to determine what proportion of the grower's total production came from the acres contracted.

However, an approximation of the proportion of total production for each crop that was involved in contracts can be obtained from the data in Table 23. It appears that a little over one-half of the Rolling Plains cotton production was involved in contracts in 1973. This compares with slightly more than 14 percent of grain sorghum production and 4 percent of total wheat production, respectively. These estimates were made under the assumption that no significant differences in yields existed between growers who contracted and growers who did not contract. That is, if 50 percent of the total cotton acres harvested were contracted, about 50 percent of the total bales produced would be under contract.

A comparison of the data in Table 23 with the data in Table 19 indicates that for each of the three crops the percentage of total production that was contracted was higher than the proportion of the number of growers who contracted. The reason that the percentage of production is higher is, of course, due to the higher frequency of contracting among large-sized growers.

Strategies in Crop Contracting

If a grower contracted all production from a specified acreage, the usual procedure was for him to contract all the acreage which he planted or expected to harvest. Those purchasing by contract usually required this procedure. Otherwise they had no practical way of determining what portion of the crop came from the contracted acreage other than to rely

Table 23. Cotton, Grain Sorghum, and Wheat: Acres Contracted as a Percent of Total Acres Planted and of Total Acres Harvested, and Amount Contracted by Volume as a Percent of Total Volume of Production in the Rolling Plains of Texas, 1973

Crop	Contracted on an acre basis		
	Acres contracted as a % of total acres planted	Acres contracted as a % of total acres harvested	Amount contracted by volume as a % of total production
	Percent		
Cotton	48	50	2
Grain sorghum	12	14	2
Wheat	3	4	2

SOURCE: Study Field Survey.

on the honesty of the grower. There were exceptions, however, as indicated in Table 24.

The data in Table 24 indicate that, for those cotton growers who contracted by acres, the aggregate acreage contracted amounted to approximately 90 percent of the acreage planted or harvested. For grain sorghum, the proportion of total acres planted or harvested to total acres contracted was somewhat higher, amounting to approximately 97 percent. The proportion was considerably lower for wheat, the total acreage contracted by acres amounting to only 67 percent of acres planted and to 72 percent of acres harvested. The number of wheat growers who contracted by acres was limited, however.

For those growers who contracted a specified volume of production, the most common strategy was to contract a substantially smaller volume than the amount they expected to produce. For each of the three crops (cotton, grain sorghum, and wheat), the volume contracted averaged approximately one-half the volume produced (Table 25).

A major reason why most growers contracted for a substantially smaller volume than their total production was the possibility of committing themselves to deliver more than they produced should adverse weather reduce yields. A second reason was that by contracting only a portion of anticipated production, they might possibly benefit from a price rise at harvest to a level higher than the contract price. By contracting only a portion of their anticipated production, they were able to protect a portion of their crop from the possibility of a drop in market prices to a level below the contract price. They were also

Table 24. Total Acres of Cotton, Grain Sorghum, and Wheat Contracted as a Proportion of Total Acres Planted and Harvested for Those Growers Contracting by Acres, Rolling Plains of Texas, 1973

Crop	Acres contracted as a % of acres planted	Acres contracted as a % of acres harvested
	- - - - - - - - - - Percent - - - - - - - - - -	
Cotton	89	90
Grain sorghum	97	97
Wheat	67	72

SOURCE: Study Field Survey.

Table 25. Number of Producers Contracting by Volume and Proportion of Production Contracted, Rolling Plains of Texas 1973

Crop	Producers contracting by volume	Proportion of Producer's 1973 total production contracted
	Number	Percent
Cotton	127	52
Grain sorghum	148	45
Wheat	87	48

SOURCE: Study Field Survey.

able to realize some benefit, should subsequent prices rise to a level above the contract price.

The distribution of growers according to the percentage of total volume contracted is shown in Table 26. The table only includes data for those growers who contracted by volume. The table indicates there was a considerable variability among individual growers in the proportion of total production contracted. Approximately one-fifth of both cotton and wheat growers, for example, contracted for 80 percent or more of their total production. It is probable that those contracting such a large proportion of their total production did not contract until the crop was near maturity and final production could be estimated fairly accurately.

Beef Cattle Contracts

It is generally believed that a high proportion of all beef cattle contracts in the study area involve feeder cattle purchased from the larger beef cattle producers who precondition calves through stocker and yearling enterprises or programs. This is where weaned calves are grown out to feeder weights on wheat pasture or other types of forage before being sold for feedlot cattle. Information developed in this analysis supports this belief.

Type of Beef Producers Contracting Cattle

There is much variability in the characteristics of farms and ranches where beef cattle are produced in the Rolling Plains. The types of units range from almost all cropland farms to large ranch operations with no crop production. Many beef producers in this area, however,

Table 26. Number of Growers Contracting by Volume and Distribution According to Proportion of Total Volume Contracted, Rolling Plains of Texas, 1973

Crop	Growers contracting by volume	Distribution of growers according to proportion of production contracted					
		Less than 20	20 to less than 40	40 to less than 60	60 to less than 80	80 to less than 100	Total
	Number	Percent					
Cotton	127	9	9	36	28	18	100
Grain sorghum	148	12	31	19	31	6	100
Wheat	87	11	22	39	6	22	100

SOURCE: Study Field Survey.

have large acreage of native pasture in comparison to their total operations. This gives them good flexibility in terms of their beef operations. The flexibility is desirable in terms of managing the grazing of different types of cropland pasture in a stocker program and/or having a production system that includes some combination of cow-calf, yearling and stocker program.

Beef producers who utilize contracts to sell beef cattle can be divided into three somewhat general types (Table 27). Cattle are contracted most typically from large wheat-stocker type beef operations. In these operations beef production usually centers around the grazing of wheat pasture in stocker type programs where calves are grown out to feeder weights. While a number of these producers have some cow-calf operations, they cannot supply their total needs for calves to graze wheat and other types of cropland pasture. This is because efficient utilization of wheat pasture calls for a number of beef calves at a certain age and stage of development. Wheat is planted in the fall and grazed as soon as it is up to a good stand until the first part of March when cattle must be pulled off the pasture if the wheat is to be harvested for grain. If grain prices are low, wheat may be grazed out rather than harvested for grain. These types of operations often include other types of cropland pasture, such as sudan, which will extend the grazing period and add flexibility to the stocker program. Order buyers who contract feeder cattle for feedlot operations can observe stockers on wheat pasture and negotiate with the operator for a future delivery date and price. Fifty-one percent of the beef producers who

Table 27. Types of Beef Producers Who Utilized Contracts to Sell Beef Cattle, Rolling Plains of Texas, 1973

Type of production	Beef producers	Average size of farm or ranch	Average number of cattle sold in 1973	Proportion of cattle sold through contracts
	Percent	Acres	Head	Percent
Wheat-stocker operations	51	2,909	227	53
Ranching with crop production	29	3,191	135	17
Ranching without crop production	20	7,307	282	30
All producers	100	3,879	212	100

SOURCE: Study Field Survey.

sold beef cattle through contracts utilized wheat-stocker type operations, and these producers accounted for 53 percent of all cattle contracted in 1973.

At the other extreme, one group of beef producers who contracted cattle sales in 1973 were large ranching operations that specialized in raising beef cattle without crop production. These large ranch operations included large brood cow herds and extensive pasture acreage. Calves from these brood cows that were sold through contracts were apparently utilized in some type of yearling program on these large ranches. This is where weaned calves are retained on the ranch and grown out to feeder weights. In 1973, there was a high demand for feeder cattle. A number of feedlots would purchase relatively light weight yearling calves during this time, and there was an unusual demand for these light weight feeder calves. Details on the production systems utilized in these large ranch operations cannot be determined from the field survey data obtained. However, yearling calves contracted off of these ranches would probably be classified as light weight feeder calves compared to those that were marketed off of wheat or other types of cropland pasture. Since 1973, the demand for light weight feeder calves has declined significantly. In 1973, ranches without crop production accounted for one-fifth of the producers that contracted their cattle sales and 30 percent of the cattle sold through contracts. These producers may not be an important group of cattle contractors during a time when light feeder cattle are in low demand.

A third group of producers who contracted cattle utilized ranch operations with crop production. These producers appeared to have some

of the production characteristics of both the wheat-stocker group and the ranch operations without crop production. These producers had relatively large brood cow herds and cow-calf operations. However, many had large cropland pasture acreages with stocker type programs similar to those that utilized wheat pastures. The distinguishing factor between these producers and the wheat-stocker operations was that wheat was not included as an activity and there appeared to be more emphasis on the production of the calves that were used in their stocker programs. On the average, these producers had lower cattle sales than either of the other two groups of contracting beef producers in 1973. They accounted for 29 percent of the beef producers who contracted cattle sales, but only 17 percent of all cattle sold through contracts.

All beef producers who utilized contracts to sell cattle in 1973 had similar characteristics in that their beef production activities included or involved the intermediate grow-out stage of feeder cattle production and their operations were relatively large.

Proportion of Producers Contracting

Seven percent of the beef cattle producers who marketed cattle in 1973 used beef cattle contracts. However, the proportion of producers who sold beef by means of contracts varied widely by size of operations. The proportion of beef cattle producers selling beef cattle through a contract appears to be related to the size of beef operation. No beef producers with sales of less than 20 head and only 0.3 percent of the beef cattle producers with cattle sales between 20 and 59 head sold beef cattle through a contract, while a high proportion of the larger beef cattle producers utilized contracts in 1973 (Table 28).

Table 28. Beef Producers Utilizing Contracts and Contract Cattle Sales, Classified by Total Cattle Sales, Rolling Plains of Texas, 1973

Beef cattle sales	Area total	Cattle contract sales	
	Number	Number	Percent
		Beef Producers	
0	1,087	---	---
1 - 19	3,935	0	0
20 - 59	2,948	2	1/
60 - 99	849	34	4
100 - 199	999	430	43
200 - 499	476	289	60
500 and over	183	24	13
All groups	10,477	779	7
		Cattle Sales	
0	0	---	---
1 - 19	33,300	0	0
20 - 59	93,239	90	1/
60 - 99	59,940	2,488	4
100 - 199	133,199	47,833	36
200 - 499	139,860	76,066	54
500 and over	206,459	19,479	9
All groups	665,997	145,956	22

1/ Less than .5 percent.

SOURCE: Study Field Survey.

Although only 7 percent of the beef cattle producers utilized contracts, about 22 percent of all beef cattle marketed in 1973 were sold through contracts. This is because the larger beef producers were more inclined to market cattle through contracts. The extent of contracting among beef producers increases with the size of operation, except for the largest size group considered. It is not clear why a smaller proportion of the beef producers with cattle sales of 500 head or more utilized contracts as compared to the producers in other large sales groups. As indicated earlier, the marketing characteristics are somewhat different in that a higher proportion of the producers in the largest size group sell direct to feedlots and to packers and are integrated beef operations that include both cattle raising and feeding (Table 17). However, contracts are usually made through order buyers, and producers in the largest size group appear to sell cattle through order buyers as much as any other group, yet they contract a significantly lower proportion of their cattle sales (see Tables 17 and 28).

Overall, however, there still appears to be a significant relationship between the use of beef cattle contracts and size of operation, both in terms of the proportion of beef cattle producers contracting and the proportion of cattle marketed. Operators in the smaller brood cow herd size groups marketed less than 5 percent of their cattle under contracts, while operators in the larger size groups marketed a significant proportion of their cattle through contracts.

There are several reasons why one would expect the use of beef cattle contracts to be associated only with the larger beef cattle producers. Contractors prefer to deal with large producers that can sell

truck-load lots because it is costly to visit small producers, who may be scattered over a wide area, to inspect cattle and collect them when ready for market. Also, buyers who are willing to contract their purchases in advance of their needs are usually looking for certain grades, weights, and types of cattle for delivery at a specified date. Small beef cattle producers with limited quantities and types of cattle usually cannot fulfill these specific requirements.

Contracting Prior to 1973

Beef cattle producers and agricultural workers interviewed in the study area reported that the use of beef cattle contracts, in relation to total beef cattle sales, varies from year to year, depending upon the supply and demand for feeder cattle and the extent of winter wheat grazing and/or cropland pasture grazing conditions. The analysis of data obtained in the field survey indicates that the sale of beef cattle through contracts has increased each year between 1969 and 1973. Within this time span, however, the largest increase in the use of contracts appeared to occur between 1969 and 1970 and between 1972 and 1973 (Table 29).

There were more beef cattle producers utilizing contracts in 1973 than in 1969. However, analysis of the field survey information on contracting from 1969 through 1973 revealed several other tendencies. Producers who started to contract before 1973 tended to continue to contract. This is illustrated by the fact that about 85 percent of the producers who contracted in 1969 contracted for 2 or more years after 1969. Furthermore, over 75 percent of the beef cattle producers who contracted

Table 29. Contract Sales of Beef Cattle, Rolling Plains of Texas, 1969-73

Year	Sold cattle through a contract	
	Farm operators	Cattle sold
	Number	
1969	249	58,078
1970	481	97,214
1971	512	103,752
1972	520	114,724
1973	781	145,956

SOURCE: Study Field Survey.

part of their sales in 1969 contracted part of their sales all 5 years, 1969 through 1973.

There was also a tendency for producers to deal with the same contractor or order buyer. About 75 percent of the producers who contracted each year during the period 1969 through 1973 dealt with the same buyer or contract negotiator. About 60 percent of the producers who contracted beef cattle sales in 1972 and 1973 dealt with the same buyer or contract negotiator. Less than 1 percent of the producers who contracted their beef cattle in 1973 dealt with two or more different contractors.

Parties Involved in Beef Cattle Contracts

Very little information exists with respect to the specific identification of beef cattle contractors. Respondents interviewed on an informal basis in the study area reported that the "cattle contracts" usually involve a feedlot as the buyer and the stocker producer as the seller. The stocker producer is most likely a rancher or a wheat producer, or both, but may also be a "cattle trader" or a cattle company. In some parts of the area, ranchers and cattlemen, including some cattle traders and cattle companies, lease wheat grazing from wheat producers. These cattlemen own the cattle grazing this wheat and may also sell these stocker cattle through contracts. In some cases, the written contract may be between the stocker producer and a cattle company or an individual, who in turn will sell the cattle to feedlots. Feeder cattle produced in this area were reported to be moving to Colorado and to the Cornbelt, as well as to Texas feedlots.

It was also reported that some producers with cow-calf operations sell their calves under contract. These contracts, to sell calves

when weaned, may be signed when the calves are very young. These contracts are very similar to contracts used to purchase heavier cattle but apply to unweaned calves, rather than stockers or feeder cattle. Some stocker producers were reported to contract to purchase their calves, as well as contract to sell them. This practice was reported to be on the increase, although still not widespread.

Order buyers usually act as agents for the feedlots in making the contracts. More than 90 percent of the beef cattle producers who utilized contracts to sell cattle in 1973 indicated that they dealt with an order buyer. Order buyers do not take ownership of cattle but act as agents for the buyers. The use of order buyers is reported to have grown in importance in recent years, because their service is a fast and efficient way to assemble uniform lots of cattle for movement by large trucks to distant feedlots, as well as those in the Southern Plains.

Farris and Couvillion describe the operations of order buyers:

> "They purchase a large percentage of the feeder and stocker cattle at auction markets for clients in other areas.... His primary function is to assemble uniform truck-load lots for delivery to a customer. He may also provide some veterinary services. Generally, his fee is about one-half of one percent of the purchase price, plus any other feed or medication and transportation costs that are entailed in meeting the buyer's specifications. Frequently the order buyer trucks the cattle to his own assembly yards prior to shipping to the client.....Order buyers have developed relationships that permit them to deal with many customers by phone. Some firms have buyers operating at several auctions in an area. One of the largest firms buys at over 100 auctions in Texas, Western Louisiana, Western Arkansas and Southern Oklahoma." [3]

The extent of contracting beef cattle sales has no doubt increased in connection with the development of cattle feeding and the growth of

large scale commercial feedlots in the Southern Plains in the 1960's and early 1970's. A survey of 10 large Texas feedlots in 1971 revealed that 9 feedlots obtained part of their feeder cattle through contracts made 3 to 5 months before purchase or delivery [3]. Eight of the feedlots contracted cattle as a regular practice. There was a strong demand for feeder cattle in the early 1970's. However, the feedlot industry appeared to reach a peak of development in 1973. Since that time, until the present (Spring 1977), the cattle feeding industry has experienced a general depression in terms of high costs of production and oversupplies of beef, with losses to cattle feeders occurring much of this time. There is a general feeling among agricultural workers that the use of beef cattle contracts had declined since 1973 as a result of the depressed conditions of the cattle feeding industry.

Types of Beef Cattle Contracts

Certain aspects of beef cattle contracts were recently investigated by Farris and Couvillion:

> "Such contracts are used mostly by larger operators who hold feeder cattle they have produced until the cattle reach an average weight of 500 pounds or more, or by operators who have purchased stocker cattle and will add 100 to 300 pounds of gain per animal before the cattle are moved to feedlots. Conditions of the contracts were fairly uniform. The usual provisions included a specified price, a delivery date, cattle to be gathered at daylight without feed and water, a 10-percent cut to sort out fleshy cattle and less desirable cattle, and a 3 percent pencil shrink." [13]

No information concerning the characteristics of beef cattle contracts was obtained in the mail survey conducted for this study. However, informal interviews were conducted with producers, officials of financial institutions, and others, and several contracts were examined

in an attempt to establish the characteristics of the beef cattle contracts used in the study area. The provisions of these contracts were similar to those described by Farris and Couvillion above.

Some stocker and feeder cattle contracts examined specified that the buyer put up $10 to $25 per head part payment at the time the contract was signed. Producers were fond of this practice and refer to the part payment as "forfeit money." The part payment was reported to be significant in terms of financing the production of the stocker cattle grazing on wheat pasture. Some crop producers familiar with this part payment procedure stated that they would like to see this practice in connection with crop contracts.

In addition to the characteristics reported by Farris and Couvillion above, the contracts examined specified the amount of part payment, the description and location of the cattle, the FOB delivery point, the scales to be used to determine pay rates and health and brand certificates to be furnished by the seller. The delivery date was usually flexible (on or about a given date). As indicated above, most contracts contained a merchantable condition clause in order that the buyer could reject any unmarketable animals. Producers reported that the "percent cut" or "sort clause" in the contract was frequently used to the advantage of the buyer. If the contracting price was 42 cents per hundredweight and a 47-cent-per hundredweight price prevails at the delivery date, the buyer may take all cattle. However, if the contract price was 45 cents and if a 38-cent price level existed at the delivery date, the buyer would usually cut the number of head taken to the maximum.

Although these contracts probably cannot be classified as production contracts, some contracts specified that certain production practices be followed by the producer in connection with stocker calves grazing on wheat. As an example, a contract might specify that no implants be used or that no grain be fed and/or that supplemental feed be limited to a certain level when needed during drouthy periods or in bad weather.

Another type of contract was reported to have been used on a very limited basis. In this case, an individual initiated a contract with the wheat producer who owned stocker cattle grazing wheat. The individual initiating the contract assumed ownership of the stocker cattle at the time that the contract was signed, but the cattle continued to graze the wheat until the end of the season. This was a way of locking into a large expense just prior to the end of a calendar year. The wheat farmer was reimbursed, at the time the contract was signed, for the cost of the cattle and all expenses incurred in terms of purchasing the stocker cattle and getting them to the wheat pasture. The final payment was based upon the amount of gain, dollars per hundredweight of gain, that the stocker cattle made while grazing the wheat. This is one way that an individual could become a "cattle producer" without furnishing any labor or management to produce cattle. This type of contract was apparently used for income tax management purposes, and its use was reported to be rare.

Future Use of Beef Cattle Contracts

While the feeder cattle supply and demand situation will influencce the extent to which cattle contracts are used, one might expect their use to increase because certain advantages exist in connection with

them. Although auctions provide a market for many small producers who would otherwise have poor and inadequate market alternatives, there are several advantages in the use of beef cattle contracts compared with the use of livestock auctions. These advantages assume, of course, that producers can be exposed to enough contractors so that a relevant market price can be established.

Lower marketing costs are associated with the use of beef cattle contracts, because the costs associated with transporting the cattle to auction markets and the auction commission fee are avoided. An additional advantage to the producer is that he can confront the buyer to negotiate for the value of his superior abilities and product when the sale contract is offered and that he may either accept or reject the sale depending upon his evaluation of the deal. Uncertainty is thus avoided with respect to the selling price, which is not the case when a producer sells his cattle through the auction.

When the auction is used, hauling and other marketing costs incurred make it difficult for a producer to reject a sale (buy his own cattle back) in order to sell at a later date. When most producers move cattle to an auction, they have made a decision to sell, even though the selling price is not known.

To the buyer, one of the obvious benefits of contracting is that purchasers may be systematically scheduled to meet planned or seasonal demands. Contract buyers may also obtain the healthier animals that result from less handling and hauling. Additional benefits result in better performance of cattle in feedlots or better condition of the product at its terminal destination. Buyers utilizing contracts and

personal contacts with producers may also benefit from superior production practices and the high performance standards of exceptional producers.

Beef cattle contracts are probably not used on a widespread basis partly because much beef production occurs on many small-sized, widely scattered beef enterprises or producing units. Under these conditions, the costs of negotiating contracts and assembling beef cattle would apparently offset the benefits that buyers gain from the use of contracts. For any given time, the feeder cattle supply and demand situation has an important influence on the extent to which beef cattle contracts are utilized. However, since the use of contracting is associated with the larger beef operations, the future size of beef-producing herds will influence the extent to which beef cattle contracts are used. A general trend to increasing size of production units may lead to more frequent use of beef cattle contracts.

REFERENCES

[1] Dietrich, Raymond A. 1968. *The Texas-Oklahoma Cattle Feeding Industry - Structure and Operational Characteristics.* B-1079, Texas Agr. Exp. Sta., Texas A&M Univ.

[2] _____ and Michael R. Riethmayer. 1972. *Analysis of Direct Selling Methods Employed by Texas Panhandle Feedlots.* MP-1069, Texas Agr. Exp. Stat., Texas A&M Univ.

[3] Farris, D. E. and W. C. Couvillion. 1975. *Vertical Coordination of Beef in the South—Nature of Different Systems.* Southern Cooperative Ser. Bul. 192.

[4] Mighell, Ronald L. and William S. Hoofnagle. 1972. *Contract Production and Vertical Integration in Farming, 1960 and 1970.* ERS-479, USDA, Washington, D. C.

[5] Texas Crop and Livestock Reporting Service. 1973. *Texas Livestock Statistics.* Bul. 11, Austin, Texas.

[6] _____. 1973. *1973 Texas Field Crop Statistics.* Bul. 99, Austin, Texas.

[7] _____. 1973. *1973 Texas Small Grain Statistics.* Bul. 105, Austin, Texas.

[8] U.S. Department of Commerce, Bureau of Census. 1972. *1969 Census of Agriculture, Part 37, Texas, Section 1, Vol. 1,* Washington, D.C.

[Blank Page in Original Bulletin]

The Texas Agricultural Experiment Station, Neville P. Clarke, Director, College Station, Texas